

amendment makes my Claim 1 more precisely describe my system and more syntactically and semantically consistent with my invention specifications.

My invention concludes Claims 1-7 "...particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." (35 USC § 112, second paragraph). My invention is original and is patentable.

My present invention is related to an integrated database data editing system for editing and managing the relational database data contents remotely through intranet or Internet in an efficient and easy-to-use manner. The editing system contains the client computer visual graphic user interfaces and tools to input, output, modify, update and manage the database data, which is extremely useful for editing the large database objects. The TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols are used to communicate between the client and server computers, which guarantees the data transmission consistency and security. The client/server version of the system is implemented by using Java technologies and deployed on the intranet. The web version is implemented by using web and Java technologies and deployed on Internet and also any other network systems. The web version has more advantage to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall. The mechanisms for user authentication and access control to the database data editing system are well designed and implemented. All these functions and mechanisms are new and have not been disclosed in the previous arts.

Gill et al. (U.S. Patent No. 6,005,560) teach a multi-media presentation system for coordinating staff access to multi-media presentation data and related information, which is useful in the magazine and newspaper publishing industry to manage and coordinate the efforts required by the publication staff to produce the desired published documents. Gill et al. does not teach anything related to relational database or anything as described in my present invention. Gill's statement (col. 5, lines 12-19) as you quoted does not suggest the objects are being retrieved from any relational database. Gill et al. do not teach what these text editor 64A, picture editor 64B, movie editor 64C and sound editor 64D are and how they work, but only mentioned that these elements can be commercially available editing tools. Gill et al. do not described what the file server 28 is.

Gill et al. (col. 4, lines 66-67) teach a multi-media object retrieval unit 56, a user interface 60 and a text editor 64 to modify and edit multi-media object but fail to teach the functions and mechanisms of how these interface and editor work. Gill's user interface and text editor are totally different from my integrated database data editing system, which the client computer user interfaces directly retrieve and edit the database data from the remote server computer and the mechanisms and functions of the client user interfaces are well defined.

Gill et al. (col. 4, lines 66-67, lines 1-18, fig. 1, 64 A-D) teach the multi-media project management and control system including a project coordinator 24 that coordinates the workflow between the publishing staff members through a plurality of networked processors or workstations. The project coordinator manages and communicates work products among staff members by providing a centralized repository for all multi-media objects in file server, and also provides the client application with a user interface to interact with the text editor, picture editor, movie editor and sound editor. Gill et al. failed to teach how the document data is stored and retrieved from the file server and how the data is edited by using the editors. Gill et al. do not teach anything related to relational database editing system as described in my current invention.

Gill et al. (col. 8, lines 49-62) teach that the multi-media presentation access controller 320 controls access to the project coordinator by using a staff member's login name and password. It is the industry standard to secure the application access by using user name and password. Gill et al. do not teach anything related to secure the access to the relational database editing system as described in my Claim 1(v) that "said database data editing system implements the user authentication and access control mechanisms which assigns different user groups with different privileges."

My Claims 1-7 are original, significant and patentable, which cannot be rejected under 35 U.S.C. 103(a).

#3. My Claims 1-2, 4 & 6 are totally different from Gill et al (US. Patent No. 6,005,560) and Allport (US. Patent No. 6,104,334), and cannot be rejected under 35 U.S.C. § 103(a).

Gill et al. teaches a multi-media presentation system for coordinating staff access to multi-media presentation data and related information which is stored in an item header file, a number of records as well as a centralized repository of a file server. Gill's system does not contain a relational database nor any graphic user interfaces and tools as described in my invention. I have described the differences between Gill's system and my invention in my previous letters sent to your office on 03/06/2006, 03/15/2005, 01/05/2004 and 05/29/2003.

Allport teaches a remote control that uses IR (infrared) commands to control various consumer appliances made by various manufactures. The remote control is low-cost, consumer-friendly, programmable, has its own graphical display so it does not interfere with a TV or other viewing screen, and is capable of interacting with the internet or other data source to provide a rich set of functionality. Allport does not teach an integrated database data editing system as my invention.

Regarding my Claim 1, Gill et al. do not teach anything related to relational database as my invention relates to an integrated database data editing system. Gill et al. (col. 4, lines 43-51) teach the utility programs that communicate with the data controller to control access to multi-media object files supplied by a file server (not database) for staff member client applications or for being written to the storage device (col. 10, lines 13-15), which is totally different from my Claim 1(i) where the client computer retrieves database data from the remote database, edits the data, and sends the data back to the original server database. Gill et al. fail to explicitly indicate if the file server is located in the same computer or remote computer through either intranet or Internet (because the technologies are totally different for the PC applications from the client/server applications in intranet or client/server applications in Internet).

Gill et al. (col. 4, 66-67) teach a user interface 60 and a text editor to create and modify the text of a multi-media object, which is different from my Claim 1(ii) where the client computer directly edits the database data retrieved from the remote computer server without writing detail codes. Gill et al. fail to teach what the user interface and text editor are and how the data is edited.

Gill et al. (col. 4, line 66, col. 5, lines 1-18, fig. 1, 64A-D) use the text editor, picture editor, movie editor and sound editor to retrieve and edit the multi-media objects

from the project coordinator, which is not similar to my Claim 1(iii) where the client computer uses a plurality of commercial text and multimedia data editors to directly edit the large text data type and binary data type retrieved from the remote server database. There are many commercial multimedia editors available. My invention is the first time to directly implement these commercial editors as elements of the editing tools to edit the database data, which is just like that the architects use bricks and steel to build a building.

Gill et al. (col. 8, lines 49-62) use a staff member's logon name and password through the multi-media presentation access controller to control the access to the multi-media objects, which is different from my Claim 1(v) where the user authentication and access control mechanisms to the client Graphic User Interfaces and to the remote database are well implemented for the integrated database data editing system and the different user groups are assigned with different access privileges.

Gill et al. (col. 2, lines 46-50) teach that "the multi-media project management system and control system has a number of different data bases for storing multi-media object data..." does not mean or suggest that the multi-media data is stored in a relational database. Gill et al. explicitly disclose that the multi-media data is stored in a file system.

Allport suggests that (col. 7, lines 60-66) "Preferably, a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ..." and (col. 24, lines 28-31) "Editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and paste objection and save and exist options." Here, Allport discloses to use a relational database to store some parameter entries, and a pop-up menu is used to provide options for editing an object, which is not similar to anything in my invention of the integrated database data editing system.

As I stated above, neither Gill et al. nor Allport teaches any mechanism or function similar to my invention of the integrated database data editing system. There is no any relationship between Gill's and Allport's systems. Therefore, it is impossible to one ordinary skill in the time of the invention was made to modify Gill's system to include editing the contents stored in the relational database as suggested by Allport in order to allow organized data in the table to be edit convenience by the click of mouse.

Regarding my Claim 2, Gill et al. do not teach the well-defined graphic user interfaces and tools that display a database table or a subset data of a table. Gill et al. (col. 17, lines 1-5) teach a Hot Text panel of the palette which is different from my Claim 2(i) where the database data on each table cell is defaulted as read only. Gill et al. (col. 16, lines 46-49) teach a picture object used to implement multi-media objects, which is different from my Claim 2(ii) where the small text data on each table cell is directly edited by mouse single-clicking. Gill et al. (col. 16, lines 35-40) teaches the object definition data used to define the multi-media presentation, which is different from my Claim 2(iii) where the table cell contains a small icon as a place-holder for the large database data types. Gill et al. (col. 16, lines 48-49) teach a pop-up menu and window of the multi-media objects, which is different from my Claim 2(iv) where the data editor is popped-up by double-clicking the small icon of the table cell for loading the remote database data. Gill et al. (col. 5, lines 1-33) teach a multi-media object retrieval unit connected to a plurality of editing components (editors), which is different from my Claim 2(v) where the type of data editors depends on the database data type inside the table cell as either text data type or multimedia data type. The “pop-up menu” or “window” is one of the industry standard components for implementing Windows form layout. Gill et al. use these standards to implement their application, which is totally different from the functions and mechanisms used in my invention of the integrated database data editing system.

Regarding my Claim 4, I use the industry standards of Windows frame layout (header panel and detail panel) and mouse action (double-click) to implement the user interfaces. Gill et al. (col. 16, lines 48-49) teach the pop-up menu, window and line of the multi-media objects, which are different from my Claim 4(i) where a Detail Panel is popped-up by double-clicking the database name on the Head Panel. Gill et al. (col. 15, lines 5-8) teach a “hot text” that performs a desired action by placing the cursor or clicking the mouse on it, which is different from my Claim 4(ii) where a database table is popped-up by mouse double-clicking the table name.

Regarding my claim 6, Gill et al. (col. 12, lines 57-67) teach that the multi-media data comes from a plurality of sources including downloaded from Internet, which is different from my Claim 6 where the client/server version of the integrated database data editing system is deployed and run on the intranet.

#4. My Claim 3 teaches that the database data editing system contains a Database Data Manager in the client computer comprising a Header Panel and a Detail Panel, which is totally different from Gill et al (US. Patent No. 6,005,560), Allport (US. Patent No. 6,104,334) and Koppolu et al. (US Patent No. 5,801,701). My Claim 3 is patentable and cannot be rejected under 35 U.S.C. § 103(a).

Koppolu et al. teach a computer method and system for interacting with a containee object contained within a container object, more specifically, an Object Linking and Embedding (OLE) method and system in Microsoft Windows environment. Koppolu et al. do not teach anything similar to my invention of the integrated database data editing system. I have described the differences between Koppolu et al. and my invention in my previous letters sent to your office on 03/06/2006, 03/15/2005, 01/05/2004, 05/29/2003 and 02/27/2003.

Koppolu et al. (fig. 32) teach a industry standard Window application form architecture including a menu bar (3203) and application workspace areas (3204 & 3205), which is different from my Claim 3 where the Head Panel and the Detail Panel of the Database Data Manager have the parent-child relationship. When a user clicks the database name or the table name on the Head Panel, the corresponding Detail Panel is popped up. Koppolu et al. (col. 3, lines 66-67, col. 4. lines 1-3, actually relates to Fig 22-24) teach the diagrams of three function implementations, which are totally different to my Claim 3.

As I stated above, it is not possible to one ordinary skill in the art at the time of the invention was made to modify the Gill and Allport system to include the database manager to include a workspace as taught by Koppolu in order to provide layout structure to allow the user to visualize and select tables for editing.

#5. My Claim 5 teaches the Detail Panel of the Database Data Manager comprising multiple tools and functions for editing and managing the remote server database through either intranet or Internet, which is totally different from Gill et al (US. Patent No. 6,005,560), Allport (US. Patent No. 6,104,334), Koppolu et al. (US Patent No. 5,801,701) and Moursund (US Patent No. 5,644,793). My Claim 5 is patentable and cannot be rejected under 35 U.S.C. § 103(a).

Gill et al. teach a multi-media presentation system and Allport teaches a remote control by IR (infrared) commands to control various consumer appliances, which are totally different from my Claim 5 where the Detail Panel of the Database Data Manager contains multiple tools and functions to remotely access, edit and manage the database.

Koppula et al. (col. 7, lines 53-64) teach a method to edit the containee object (such as a spreadsheet program) in a word processor, which is totally different from my Claim 5(i) where the Database Designer is used to creating and modify the remote database through either intranet or Internet.

Moursund teaches a system and method for adding a button or other type of control to a tool bar or other region of a Windows form. A control is added by dragging an object to a region for holding controls and dropping the object at the desired location of the control in the region. Moursund's system is totally different from my invention of the integrated database data editing system. I have described the differences between Moursund's system and my invention in my previous letters sent to your office on 03/06/2006, 03/15/2005, 01/05/2004, 05/29/2003 and 02/27/2003.

Moursund (fig. 4G, 112, col. 5, lines 39-45) teaches a button creation routine for customizing the toolbar of the Microsoft Access GUIs with some functions of the Access Database, which is totally different from my Claim 5 where all the tools and functions of Detail Panel of Database Data Manager in the client computer are separated from the remote database by the networks and are used to remotely access, edit and manage the database through either intranet or Internet by using TCP/IP based connection-oriented protocols. Microsoft Access is a very simple PC relational database with very limited functions. The Access GUIs cannot be separated from the database and both GUIs and database can only run in the same PC. Furthermore, Microsoft Access only support small data types but not the large text and binary data types. As I mentioned above, the

technologies for PC application, client/server application in intranet and client/server application in Internet are totally different.

Therefore, it is not possible to one ordinary skill in the art at the time of the invention was made to modify Gill, Allport and Koppolu system to include the toolbar of Microsoft Access to edit or modify the database structure as taught by Moursund in order to allow the user to see entire process and user ease of use.

#6. My Claim 7 teaches that the web version of the integrated database data editing system is deployed and run on the Internet and also intranet which is implemented by the security features of the Public Key Infrastructure (PKI) and Secure Socket Layer (SSL) (the database data communication between the client and server computers through the standard Internet protocols which can pass any network infrastructures, routers and firewalls). My Claim 7 is totally different from Gill et al. (US. Patent No. 6,005,560), Allport (US. Patent No. 6,104,334) and Teper et al. (US. Patent No. 5,815,665), and is patentable under 35 U.S.C. 103(a).

Tepper et al. teach an Online Brokering Service providing user authentication and billing services to anonymously and securely purchase online services. Users and service provider sites initially register with the Brokering Service, and are provided with respective client and server software components for using the Brokering Service. Tepper et al. do not teach anything related to my invention of the integrated database data editing system. I have described the differences between Tepper et al. and my invention in my previous letters sent to your office on 03/06/2006, 03/15/2005, 01/05/2004, 05/29/2003 and 02/27/2003.

Gill et al. and Allport do not teach a system deployed and run on the Internet and also intranet. Gill et al. teach a multi-media presentation system. Gill et al. (col. 13, lines 58-67) teach a method to place the text objects and picture objects on a document page, which is totally different from my Claim 7 where the web version of integrated database data editing system is implemented with Public Key Infrastructure (PKI) and Secure Socket Layer (SSL) and is deployed on Internet.

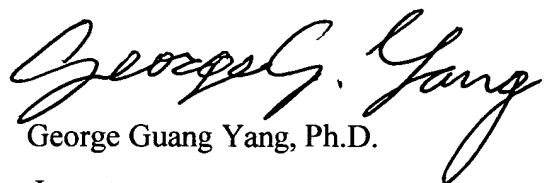
Teper et al. (col. 17, lines 23-33) teach a method to encrypt data by session key and also by SSL. The Public Key Infrastructure (PKI) technology has been widely used

as an industry standard since 1970's and the Secure Socket Layer (SSL) is also widely used as an industry standard for many Internet applications. So far, both PKI and SSL are the best technologies and standards for Internet and other network application security through standard network communication protocols. In my invention, the PKI and SSL technologies are first-time used to encrypt and secure the database data transmission between the client computer and the server computer through the Internet or intranet.

As I stated above, Gill et al., Allport and Teper et al. do not teach anything related to database. It is impossible for one ordinary skill in the art at the time of the invention was made to modify the Gill and Allport system to include both key encryption and secure socket layer as taught by Teper in order to protect the database data transferring from the server to client or over the unsecured internet.

In conclusion, my invention of the integrated database data editing system is original and totally different from the arts of Gill et al., Allport, Koppolu et al., Moursund, Teper et al. and any previous inventors. My invention is very significant in both technology and economy aspects and is patentable under 35 U.S.C. § 112, § 103, etc. It has taken about six years now since my patent was filed in your office on 10/02/2000, which is one third of my productive years in my life. I request your office to approve my patent application as soon as possible. Thanks.

Sincerely,

A handwritten signature in cursive script that reads "George Guang Yang". The signature is written in black ink and is positioned above the printed name and title.

George Guang Yang, Ph.D.

Inventor